



NOVEL HUMAN NEUREXIN-LIKE PROTEINS AND POLYNUCLEOTIDES ENCODING THE SAME

The present application claims benefit of priority to U.S. 5 Applications Ser. Nos. 60/178,557, filed January 26, 2000, and 60/199,513, filed April 25, 2000 which are herein incorporated by reference in their entirety.

1. INTRODUCTION

The present invention relates to the discovery, 10 identification, and characterization of novel human polynucleotides encoding proteins that share sequence similarity with animal neurexin proteins and contactin associated proteins. The invention encompasses the described polynucleotides, host cell expression systems, the encoded proteins, fusion proteins, 15 polypeptides and peptides, antibodies to the encoded proteins and peptides, and genetically engineered animals that either lack or over express the disclosed sequences, antagonists and agonists of the proteins, and other compounds that modulate the expression or activity of the proteins encoded by the disclosed sequences that 20 can be used for diagnosis, drug screening, clinical trial monitoring, the treatment of diseases and disorders, or cosmetic or nutriceutical applications.

2. BACKGROUND OF THE INVENTION

Neurexins have been associated with, *inter alia*, mediating 25 neural processes, seizures, signaling, exocytosis, cancer, and development. Neurexins can also serve as receptors for latrotoxins.

3. SUMMARY OF THE INVENTION

The present invention relates to the discovery, 30 identification, and characterization of nucleotides that encode novel human proteins and the corresponding amino acid sequences of